

What is claimed is:

1. A secure clamping mechanism comprising:
two spaced apart surfaces;
a resiliently compressible biasing member between the two spaced apart surfaces;
5 a clamp portion having a drive portion that is structured to be slidingly engaged between
the two spaced apart surfaces; and
an interference means for engaging the biasing member between the drive portion and at
least one of the spaced apart surfaces.
2. The clamping mechanism of claim 1 wherein the interference means further comprises
10 means for limiting relative motion of the clamp portion between the two spaced apart surfaces.
3. The clamping mechanism of claim 1 wherein the interference means further comprises a
locking key interlocked with at least one of the two spaced apart surfaces.
4. The clamping mechanism of claim 3 wherein one of the locking key and one of the
spaced apart surfaces is structured to resiliently flex to permit the locking key to be positioned
15 between the two spaced apart surfaces and is further structured to relax for interlocking the
locking key between the two spaced apart surfaces after the locking key is positioned.
5. The clamping mechanism of claim 1 wherein the interference means further comprises a
notch formed in at least one of the two spaced apart surfaces, and a locking key having a
complementary detent engaged with the notch.
- 20 6. The clamping mechanism of claim 5 wherein the drive portion further comprises an
elongated shaft portion that is structured to slidingly fit between the two spaced apart surfaces
and that is further structured for engaging a first end of the biasing member.
7. The clamping mechanism of claim 6 wherein the locking key further comprises a means
for engaging a second end of the biasing member opposite from the first end thereof.

8. The clamping mechanism of claim 6 wherein:
the clamp portion further comprises a jaw portion, and
the elongated shaft portion further comprises a shaft extended from the jaw portion,
wherein a portion of the elongated shaft portion distal from the jaw portion is structured for
5 engaging the first end of the biasing member.
9. The clamping mechanism of claim 6 wherein the locking key further comprises:
a substantially rigid elongated body having a substantially rectangular cross-section;
a substantially rectangular shoulder portion formed at a first end of the elongated body;
and
10 first and second detents projecting from opposing sides of the elongated body.
10. The clamping mechanism of claim 9 wherein the locking key further comprises structure
projecting from the shoulder portion for engaging the biasing member in substantial alignment
with a longitudinal axis of the elongated body.
11. The clamping mechanism of claim 9 wherein each of the first and second detents further
15 comprises a lead-in formed between the shoulder portion and an edge of the detent distal from
the body.
12. A clamping mechanism comprising:
a pair of walls spaced apart a substantially constant distance and having an opening
formed therebetween;
20 a compression spring sized to compress between the spaced apart walls;
a clamp having a jaw portion and a drive portion extending therefrom, the drive portion
being sized to slidably fit between the spaced apart walls and including structure that is spaced
away from the jaw portion and is adapted to engage a first end of the spring; and
a locking key structured to substantially permanently interlock with one or more of the
25 spaced apart walls and to engage a second end of the spring.

13. The clamping mechanism of claim 12 wherein the pair of walls further comprise a pair of resiliently flexible walls.
14. The clamping mechanism of claim 13 wherein:
the locking key further comprises one or more detents projecting from a body portion
5 thereof, and
one or more of the resiliently flexible walls further comprises a notch positioned adjacent to the opening formed therebetween and structured to receive one of the detents of the locking key.
15. The clamping mechanism of claim 14 wherein the drive portion of the clamp further
10 comprises an elongated shaft portion that cooperates with the locking key to contain the spring in a partly compressed state when the locking key is interlocked with one or more of the spaced apart walls.
16. The clamping mechanism of claim 15 wherein the locking key further comprises a shoulder portion formed at one end for supporting the spring in a compressed state.
- 15 17. The clamping mechanism of claim 16 wherein the locking key further comprises a nose portion formed at one end and extending from the shoulder portion for positioning the spring relative to the locking key.
18. A cradle for a mobile electronics device, the cradle comprising:
a substantially rigid base having a seat formed therein and a back extending crosswise
20 from the seat, the back including a channel having an opening thereinto formed at a first end that is distal from the seat and that is formed having a substantially rigid but resiliently flexible wall structure that includes at least one notch formed therein adjacent to the opening,
a substantially rigid clamp having a jaw and an elongated shaft extending crosswise from the jaw, the elongated shaft being structured to be slidably received into the channel through
25 the opening thereinto and further including a spring engagement structure formed distal from the jaw;

a locking key having at least one substantially rigid detent projecting from a substantially rigid body portion, the detent being structured to interlock with the notch formed in the channel portion of the base; and

- a compression spring that is sized to be received into the channel through the opening
5 thereinto and is further sized to be in a partly compressed state when positioned between the locking key and the spring engagement structure of the elongated shaft distal from the jaw.

19. The cradle of claim 18 wherein the detent of the locking key is further structured to interfere with the channel opening and the substantially rigid but resiliently flexible wall structure of the channel portion of the base.
- 10 20. The cradle of claim 18 wherein the locking key further comprises a pair of rigid detents projecting from the substantially rigid body portion.
21. The cradle of claim 18 wherein the locking key further comprises a tapered lead-in formed between a first end of the body portion and a portion of the detent distal from the body portion.
- 15 22. The cradle of claim 18 wherein the locking key further comprises a shoulder portion formed a first end of the body portion and substantially crosswise to a longitudinal axis of the body portion.
23. The cradle of claim 22 wherein the shoulder portion of the locking key further comprises structure for receiving one end of the compression spring.